

ABSTRACT

[0076] The present invention provides improved light delivery catheters for use in therapeutic methods, such as PDT, that require illumination of target tissue within a blood vessel or other hollow body organ. An improved catheter comprises a catheter shaft having a light treatment zone at its distal end. A light guide, such as an optical fiber, in the catheter shaft transmits light from a light source at the proximal end of the catheter shaft to the light treatment zone. An occlusion balloon is positioned on the distal end of the catheter shaft adjacent to the light treatment zone. An inflation lumen in the catheter shaft, and in fluid communication with the balloon, delivers fluid from an inflation fluid source at the proximal end of the catheter shaft to the balloon. An infusion lumen in the catheter shaft delivers infusion fluid from an infusion fluid source at the proximal end of the catheter shaft to the light treatment zone. A plurality of infusion ports formed on the light treatment zone, and in fluid communication with the infusion lumen, deliver infusion fluid to the hollow body organ so that blood can be flushed from region between the light treatment zone and target tissue.